WESTINGHOUSE TECHNOLOGY ADVANCED MANUAL LESSON PLAN		
Lesson R504P-56,61 (Ch. 2.1)	Title: OPERATOR'S LOGS	
Written by: Van Sickle	Date: 02/99	
	Learning Objectives: 1. Determine if any technical specification action statements are in effect, are about to be entered, or will expire during the time period associated with the log. 2. Determine if any system or piece of equipment addressed in the log is in an abnormal alignment. 3. Determine if the surveillance testing to be accomplished during the shift conflicts with any out-of-service equipment or system alignment. 4. If a unit trip occurs or a plant shutdown is required, determine the cause. **Operator's Log #1** Date: 27 July 96 Shift: 2300 - 0700 Equipment Out of Service:	
LCO 3.5.2	1. No information is provided regarding how long the B centrifugal charging pump has been out of service. Required action A.1 of LCO 3.5.2 allows one ECCS train to be inoperable for 72 hrs.	
LCO 3.7.2	2. MSIV bypass valve operability is not addressed in technical specifications.	
LCO 3.3.1	0010 Pulling the instrument power fuses to power range channel 3 will cause trips of the following bistables associated with that channel: high positive and negative rate trips, power range neutron flux - high and - low trips, P-8, P-10, and overpower rod stop. The tripped bistables for the OTΔT and OPΔT trips and runbacks are the correct bistables.	

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LCO 3.3.1	0010 (cont'd)	The actions listed in the log entry address the channel tripping requirements associated with conditions D and E of LCO 3.3.1. Not addressed but presumably OK are the states of the P-8 and P-10 permissives. Required actions R.1 and Q.1, respectively, of LCO 3.3.1 require verification that these interlocks are within their required states within 1 hr. Also not addressed are any plans to perform surveillance requirement 3.2.4.2 in accordance with required action D.2.2. Since the power supply for the lower detector has failed, in all likelihood the input from this power range channel to the QPTR calculation is inoperable. With one power range channel inoperable and thermal power ≥ 75%, verification of the QPTR with the movable incore detectors is required every 12 hrs.
LCOs 3.2.4 & 3.3.1	0040	The QPTR is within the limit of LCO 3.2.4 (1.02). However, the QPTR appears to have been calculated from the outputs of the remaining three operable power range detectors, and again no mention is made of verifying the QPTR with the movable incore detectors in accordance with required action D.2.2 of LCO 3.3.1 and surveillance requirement 3.2.4.2 of LCO 3.2.4.
LCO 3.8.4 Use Figure 6-8 of the systems manual to illustrate the DC power train alignments.	0230	Problems with battery charger #1 are reported, but the log does not state that the battery charger has been declared inoperable. LCO 3.8.4 requires that both the train A and the train B DC electrical power subsystems shall be operable. The bases for this LCO state that an operable DC subsystem requires the battery and one battery charger per battery to be operating and connected to the associated DC buses. The log entry does not indicate whether battery charger #3 (the other train A charger) is placed in service. If the train A subsystem is inoperable, conditions A and B of LCO 3.8.4 allow only 2 hrs for restoration before a shutdown is required.

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LCO 3.2.3 Figure COLR-7	0340 The AFD is reported outside the acceptable band for 100% power, as illustrated in Figure COLR-7. No mention of entering condition A of LCO 3.2.3 is made in the log. 0750 Unprofessional log entry. This could be indicative of shift problems or management concerns. Investigation by the resident inspector might be in order.	
	Operator's Log #2 Date: 08/01/98 Shift: 0700 - 1500 Plant Status:	
LCO 3.8.1 LCO 3.0.6, Spec. 5.5.15	A surveillance of centrifugal charging pump B is scheduled while diesel generator A is out of service for maintenance. If the surveillance renders the pump inoperable, required action B.2 of LCO 3.8.1 requires declaring centrifugal charging pump A (supported by DG A) inoperable when pump B becomes inoperable. Also, the potential for a loss of safety function exists (see LCO 3.0.6 and administrative controls specification 5.5.15). On the surface, performing the train B pump surveillance while the train A DG is out of service appears to be inadvisable. Equipment Out of Service:	
LCO 3.8.1	1. DG A: Condition B of LCO 3.8.1 applies; there is no log entry for this shift of a performance of surveillance requirement 3.8.1.1 (breaker alignment - required action B.1) or of a determination of DG B operability (required action B.3.1 or B.3.2).	
LCO 3.3.7	2. A train chlorine monitor: Condition A of LCO 3.3.7 applies; there is no log entry concerning preparations for placing one CREVS train in recirculation mode (7-day completion time).	

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LCOs 3.3.1 & 3.3.2 Applicable RTS functions: OTΔT, low pressurizer pressure, high pressurizer pressure Applicable ESFAS functions: low pressurizer pressure SI, P-11	1038	Pressurizer pressure channel 2 has failed, but there is no indication of entry into conditions of LCOs 3.3.1 and 3.3.2. Applicable conditions of LCO 3.3.1 (E, M) require placing the inoperable channel in trip within 6 hrs; applicable conditions of LCO 3.3.2 (D, K) require placing the inoperable channel in trip within 6 hrs and verifying the proper state of the P-11 interlock within 1 hr.
LCO 3.8.1	1304	If the surveillance has rendered the pump inoperable, required action B.2 of LCO 3.8.1 is applicable (see plant status discussion above).
	1450	It appears that the operator believes he is giving permission to work on pressurizer pressure channel 2, whereas I&C may believe it has been given permission to work on channel 1 in accordance with the original surveillance plans for the shift. Also, starting the calibration this close to the end of the shift could lead to problems if the shift turnover is not thorough.
	Date: 08/01/96	Shift: 1500 - 2300
	Plant Status:	
	The oncoming operator definitely thinks the channel calibration is being performed on the failed channel from the previous shift.	
	1520	Reactor trip on 2-of-4 pressurizer pressure channels out of service (channel 2 is failed; channel 1 is out of service for routine calibration).